

Remarks

This paper is filed in response to the Final Office Action dated **August 21, 2007**. Claims 1-18 and 21-26 are pending in this application. The Office Action rejected claims 1-14, 16-18 and 21-24 under 35 USC § 103 over Cumming (US 4144815) in view of Keil (US 6176168); and rejected claims 15, 25 and 26 under 35 USC § 103 over Cumming in view of Keil and further in view of Koerner (US 4495851).

Reconsideration in view of the following remarks is respectfully requested.

Claim Rejections

Applicants previously argued that the rejections do not provide an actual prior art motivation to combine/modify the references in a way that would result in a system or method meeting the limitations of the rejected claims. Cumming and Keil teach alternative ways to transmit power and setting data to a fuze. Cumming teaches a modulated microwave signal that carries both power and fuze setting data. See abstract. Keil teaches a modulated inductive signal that carries both power and fuze setting data. See e.g. Figure 7 and column 4, lines 16-31.

The claimed system/method uses an inductive signal for power transmission, and an electromagnetic signal, for example an RF signal, for transmission of fuze setting data.

To arrive at the claimed invention, both Cumming and Keil would have to be dissected into component parts, and certain components from each reference would have to be used. Specifically, the power transmission portion of Keil's modulated inductive signal would have to be used with the data transmission portion of Cumming's modulated microwave signal. The rejection provides no motivation to make this type of combination/modification to Cumming and Keil.

A person of ordinary skill in the art would not be motivated to use an unmodified Keil system with an unmodified Cumming system, as the combination would require unnecessary duplication. Once power and setting data are transmitted to the fuze using the method of one of Keil or Cumming, there is no reason to also use the other method.

In response to Applicants' arguments filed 6/7/07, the Office Action cites KSR v. Teleflex and asserts that although claims are obvious when there is a teaching, suggestion or motivation to combine prior art teachings, the TSM test is only one of a number of valid

rationales that can be used to determine obviousness. See Office Action at page 2.

Although the KSR case may state that other rationales exist for determining obviousness besides a rigid application of the TSM test, the rejection does not cite any alternative test for obviousness. The rejection further does not provide an analysis that would establish a *prima facie* case of obviousness under any alternative theory of obviousness. For example, after citing the KSR case, the Office Action asserts, “In the present case all the claimed elements were known in the prior art and one skilled in the art **could have** combine[d] the elements as claimed...” (emphasis added). See Office Action at page 2.

Asserting what a person “could have” done is analogous to asserting that a certain action is merely possible. Although a person “could have” built the claimed device, they also “could have” built many other devices. Absent a teaching that would lead the person to the claimed configuration, there is nothing that makes the claimed configuration stand out above the other possible configurations – there is nothing that makes the claimed configuration obvious.

Virtually all inventions are combinations of old elements. See e.g. Environmental Designs, Ltd. v. Union Oil Co., 218 USPQ 865, 870 (Fed.Cir. 1983).

If an identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be “an illogical and inappropriate process by which to determine patentability.” In re Rouffet, 47 USPQ2D 1453 (Fed. Cir. 1998), citing Sensonics, Inc. v. Aerosonic Corp., 38 USPQ2d 1551, 1554 (Fed.Cir. 1996).

In making the assessment of differences between a claimed invention and the prior art, 35 USC § 103 specifically requires consideration of the claimed invention “as a whole.” The “as a whole” instruction prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result – often the very

definition of invention. See Ruiz v. A.B. Chance Co., 69 USPQ2D 1686 (Fed. Cir. 2004).

The Federal Circuit has provided further assurance of an “as a whole” assessment of the invention under §103 by requiring a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. In other words, the examiner must show some suggestion or motivation, before the invention itself, to make the new combination. See Ruiz v. A.B. Chance Co., 69 USPQ2D 1686 (Fed. Cir. 2004).

The present rejections do not establish desirability of the claimed system/method. The rejections have not explained any understanding or principle, or provided any teaching that would motivate a person of ordinary skill in the art to make the claimed system or practice the claimed method. Therefore, Applicants assert that a *prima facie* case of obviousness has not been established against the pending claims.

Further, Applicants mention the Keil reference in the Background of the Invention section, and teach that although such prior art methods have been sufficient for prior art fuzes, present day fuzes require higher data transfer rates in order to be programmed within acceptable time restraints. See page 1, lines 15-19 and page 2, lines 19-26. Applicants claimed invention is capable of providing power and setting data to a fuze faster than the methods disclosed in the prior art. For example, because the claimed system/method uses separate power and data transmissions that can be sent simultaneously, a fuze can be powered and programmed faster than when using a single modulated signal that includes both power and data. Further, a person of ordinary skill in the art would recognize a trade off between data and power when using a single modulated signal, as a signal optimized for power transfer would take longer to transmit the setting data, and a signal optimized for data would take longer to power the fuze. In the claimed system and method, the power signal can be optimized for power and the data signal can be optimized for data, thus allowing for faster fuze powering and setting than was possible in the prior art.

Applicants further assert all arguments presented in the Amendment filed 6/7/07.

In view of the foregoing remarks, Applicants assert that the rejections do not present a *prima facie* case of obviousness against the pending claims. Accordingly, Applicants

request withdrawal of the rejections.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-18 and 21-26 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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